

5' AGACCCTGAACGTCCAGACCGTCCC 3'

Please amend the paragraph on page 12, lines 34-36, as follows:

B²
**EXAMPLE 4 : CITRULLINATION OF THE PEPTIDES S-47-S (SEQ ID NO:3)
AND S-35-R (SEQ ID NO:4) BY PAD, AND TEST OF THE REACTIVITY OF THE
CITRULLINATED PEPTIDES.**

Please amend the paragraph on page 12, lines 37-39 and page 13, lines 1-12, as follows:

The peptide of 49 amino acids S-47-S (SEQ ID NO:3) having the sequence (1-letter
code):

NH2-STGHSGSQHSHTTTQGRSDASRGSSGSRSTSRETRDQEQSGDGSRHSGS-COOH

corresponding to amino acids 71 to 119 of the sequence of a human filaggrin unit, and
comprising 6 arginine residues, and

B³
the peptide of 37 amino acids S-35-R (SEQ ID NO:4) having the sequence (1-letter
code):

NH2-SQDRDSQAQSEDSERRSASASRNHRGSAQEQRDGSR-COOH

corresponding to amino acids 155 to 191 of the sequence of a human filaggrin unit, and
comprising 7 arginine residues, were prepared by peptide synthesis. The peptides S-47-R and S-
35-R are represented in the sequence listing in the annex under the respective numbers SEQ ID
NO: 3 and SEQ ID NO: 4.

Please amend the paragraph on page 13, lines 13-20, as follows:

B⁴
These 2 peptides, as well as fil-gst, were citrullinated by the action of PAD, for 30
minutes at 50°C, in the same reaction medium as that indicated in Example 2. The specific
conditions for each peptide, and for the fil-gst are the following:

- peptide S-47-S (SEQ ID NO:3): 4 mU / μ mol arginine
- peptide S-35-R (SEQ ID NO:4): 2.7 mU / μ mol arginine
- fil-gst: as indicated in Example 2.

Please amend the paragraph on page 13, lines 34-38 and page 14, lines 1-6, as follows:

The results are illustrated by Figure 5, which shows that:

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- AHF4 recognizes the peptide S-47-S (SEQ ID NO:3) and fil-gst, citrullinated or not, but does not recognize S-35-R (SEQ ID NO:4), citrullinated or not.

- S-47-S (SEQ ID NO:3) is recognized, after citrullination, by the serum from the patient suffering from RA, whereas S-35-R (SEQ ID NO:4), citrullinated or not, is not recognized. The same serum recognizes, moreover, the AVFs and the citrullinated fil-gst but does not recognize the noncitrullinated fil-gst.

Please amend the paragraph on page 14, lines 7-9, as follows:

B⁶
EXAMPLE 5 : SYNTHESIS OF THE PEPTIDES E-12-H (SEQ ID NO:5) AND E-12-D (SEQ ID NO:6) CITRULLINATED AND NONCITRULLINATED AND TEST OF THE REACTIVITY OF THE PEPTIDES.

Please amend the paragraph on page 14, lines 10-13, as follows:

B⁷
The peptides E-12-H (SEQ ID NO:5) and E-12-D (SEQ ID NO:6) were determined with reference to the nucleotide sequences of the gene for human profilaggrin which are described by GAN S.Q et al. [Biochemistry, 29: 9432-9440, (1990)].

Please amend the paragraph on page 14, lines 14-21, as follows:

The peptide of 14 amino acids E-12-H having the sequence (1-letter code):

NH₂-EQSADSSRHSGSGH-COOH (SEQ ID NO:5)

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comprises 1 arginine residue, and the peptide of 14 amino acids E-12-D having the sequence (1-letter code):

NH₂-ESSRDGSRHPRSHD-COOH (SEQ ID NO:6)

comprises 3 arginine residues.

Please amend the paragraph on page 14, lines 27-29, as follows:

B⁹
The citrullinated peptides E-12-H (SEQ ID NO:5) and E-12-D (SEQ ID NO:6) were